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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yusuke Ichikawa

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EXAMINER

YABUT, DIANE D

ART UNIT

PAPER NUMBER

3734

MAIL DATE

DELIVERY MODE

09/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,944

Applicant(s)

ICHIKAWA, YUSUKE

Examiner

Diane Yabut

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

This action is in response to applicant's amendment received 25 June 2007.

The examiner acknowledges the amendments made to the specification and the claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9, 12-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hoyns** (U.S. Patent No. **5,759,154**) in view of **Ouchi** (U.S. Patent No. **6,238,336**).

Claims 1-2, 5-6, 13, and 16: Hoyns discloses a needle **10** for being inserted into tissue within the body cavity, which includes a plurality of staggered-array or radially-patterned doughnut-shaped recesses **114** over a predetermined range on the surface of the tip portion of the needle thereof from the tip thereof on the back side of a cutting-tip portion (Figures 1, 1A, 6; col. 4, lines 1-4). Hoyns discloses the claimed device except for the needle being a tube and a sheath which is inserted into a treatment tool insertion channel of an ultrasonic endoscope and a needle tube for being inserted into tissue within the body cavity through the sheath.

Ouchi teaches an ultrasonic endoscope with a sheath **100** which is inserted into a treatment tool insertion channel **13** of the ultrasonic endoscope and a needle tube **101**

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for being inserted into tissue within the body cavity through the sheath (Figure 1, col. 4, lines 15-20). It would have been obvious to one of ordinary skill in the art at the time of invention to provide a ultrasonic endoscope and a needle tube, as taught by Ouchi, to Hoyns since it was known in the art that an injection or aspiration needle can be properly and accurately penetrated into a target part while using an ultrasonic endoscope that accurately monitors the state of penetration (col. 1, lines 50-54).

Claims 3-4, 9, 14-15, and 18: Hoyns discloses multiple doughnut-shaped recesses being formed using a laser apparatus or an electric discharge machining apparatus under positioning control set so that the doughnut-shaped recesses have no adverse effects on a cutting-tip portion forming the needle tube due to overlap of the doughnut shaped recesses and the cutting-tip portion (col. 6, lines 50-58 and col. 7, lines 52-61).

Claim 12: Hoyns discloses the claimed device including a puncturing portion formed with a suitable length at the tip of the ultrasonic puncture needle with a ultrasonic-reflection means on the surface of the tip portion thereof, except for a tube portion formed in the shape of a tube at the rear end of the puncturing portion, and the tube-shaped portion formed as an extension of the tube portion.

Ouchi teaches a tube portion formed in the shape of a tube at the rear end of the puncturing portion of needle **101**, and the tube-shaped portion formed as an extension of the tube portion, and it would have been (Figure 1, col. 4, lines 15-20). It would have been obvious to one of ordinary skill in the art at the time of invention to provide a tube portion in the needle, as taught by Ouchi, to Hoyns since it was known in the art that

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aspiration and injection needles, or tubular needles, are commonly used with ultrasonic endoscopes.

3. Claims 7-8, 10-11, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hoyns** (U.S. Patent No. **5,759,154**) and **Ouchi** (U.S. Patent No. **6,238,336**) as applied to Claims 5, 6, and 16 above, and further in view of **Guess** (U.S. Patent No. **4,401,124**).

Claims 7-8 and 17: Hoyns and Ouchi disclose the claimed device except for the plurality of recesses being formed at positions such that overlap of the recesses and the cutting-tip portion does not occur.

Guess teaches a needle tube with a plurality of recesses **16** being formed at positions such that overlap of the recesses and the cutting-tip portion **12** does not occur (Figure 1). It would have been obvious to one of ordinary skill in the art at the time of invention to provide a plurality of recesses that do not overlap with the cutting-tip portion, as taught by Guess, to Hoyns and Ouchi since it was known in the art that having the recesses positioned away from the cutting-tip in a non-overlapping configuration would prevent interference and decrease of cutting function.

Claims 10-11 and 19: Hoyns discloses multiple doughnut-shaped recesses being formed using a laser apparatus or an electric discharge machining apparatus under positioning control set so that the doughnut-shaped recesses have no adverse effects on a cutting-tip portion forming the needle tube due to overlap of the doughnut shaped recesses and the cutting-tip portion (col. 6, lines 50-58 and col. 7, lines 52-61).

Response to Arguments

4. Applicant's arguments filed 25 June 2007 have been fully considered but they are not persuasive.
5. The applicant generally argues that Hoyns discloses octagonal, square, and diamond-shaped recesses formed in the needle rather than doughnut-shaped recesses, as recited in the claims. The examiner asserts that something "doughnut-shaped" is something that resembles a doughnut in its shape, and therefore the octagonal-shaped recesses as seen in Figure 6 includes a shape that resembles a doughnut or ring.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane Yabut whose telephone number is (571) 272-6831. The examiner can normally be reached on M-F: 9AM-4PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on (571) 272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MICHAEL J. HAYES
SUPERVISORY PATENT EXAMINER